
RUFFING, RENE A.; "LAMBERT, ANGELA L.; STAUFFER, JAY R. JR.

The Pennsylvania State University, Room 9 Ferguson Building, University Park, PA, 16802, USA

Feeding ecology of the round goby in the Pennsylvania waters of Lake Erie

The round goby (*Neogobius melanostomus*) was first discovered in Pennsylvania waters in 1996 by the Pennsylvania Fish and Boat Commission. Since that time, the Pennsylvania population of round gobies has increased exponentially. This study was conducted to evaluate the prey preference of round gobies to examine possible competition for prey between the gobies and native fishes. This is important because Lake Erie, and its surrounding watershed, is home to native species, which occupy the same habitat as the gobies, that are listed as threatened or endangered in Pennsylvania. Gobies were collected within Presque Isle Bay and in areas outside the bay for comparison. The gobies were separated into 20mm size classes, then preserved, and their stomach contents were removed and identified to the lowest possible taxon. Preliminary results indicate that larger gobies prefer zebra mussels (*Dreissena polymorpha*) and quagga mussels (*Dreissena bugensis*) as their primary prey, though they will take other benthic macroinvertebrates. Smaller gobies also prefer zebra and quagga mussels as their primary prey, however they will take a wider variety of aquatic macroinvertebrates, including *Daphnia* sp. and amphipods. Overall, the gobies seem to eat any prey that they catch. Future studies will incorporate comparisons of the goby diet to the diets of threatened and endangered species that inhabit the same areas. (560: 5 July; Washington Park I (AM); Fish Ecology)

SABAJ, MARK H.

Academy of Natural Sciences, Department of Ichthyology, 1900 Benjamin Franklin Parkway, Philadelphia, PA, 19103, USA

New species, systematics and biogeography of *Leptodoras* in South America (Doradidae, Siluriformes)

Leptodoras Boulenger is a monophyletic genus of Doradidae (thorny catfishes) comprised of seven valid and at least four undescribed species distributed in large, predominantly lowland rivers throughout the northern half of cis-Andean South America. *Leptodoras* is easily recognized by its long conical snout and well-developed oral hood formed by the membranous union of maxillary barbels, paired jaw barbels, and labial extensions. Analysis of specimens commonly identified as *Leptodoras linnelli* Eigenmann and *L. acipenserinus* (Günther) revealed three undescribed species: one restricted to the main channel of the lower and middle Orinoco River, a second in the piedmont and llanos regions (Orinoco Dr.) of Colombia and Venezuela, and a third widely distributed in lowland regions of the Negro and Amazon river systems. *Leptodoras linnelli* is distributed in several disjunct river systems draining the Guiana Shield, and *L. acipenserinus* appears restricted to the upper Amazon Basin. Relationships and distributions of species of *Leptodoras* will be discussed and compared to biogeographical patterns exhibited by other Neotropical fishes common to large-river habitats. (485: 6 July; Pershing EW (AM); Fish Systematics)

"SAENZ, DANIEL; FITZGERALD, LEE A.; DAYTON, GAGE H.; BAUM, KRISTEN A.

Texas A&M University/Southern Research Station, 506 Hayter ST., Nacogdoches, TX, 75961, USA

Mechanisms of predator avoidance in a guild of tadpoles

Larval anurans use habitats that vary in hydroperiod from permanent water with high predator densities to ephemeral sites with low predator densities that hold water for only a few weeks. Length of larval stage also varies greatly between species. Species with long larval periods tend to inhabit permanent water and are less susceptible to predators, compared to species with short larval periods that tend to inhabit ephemeral water and are more susceptible to predators. We studied four winter breeding anuran species in eastern Texas: *Pseudacris crucifer*, *P. triseriata*, *Rana sphenoccephala*, and *Scaphiopus holbrookii*, and compared habitat use, activity rates, and susceptibility to predation by dragonfly larvae (*Anax junius*). Although all the species used ephemeral habitats, we found that species occupying sites with shorter hydroperiods had higher activity rates and were more susceptible to predation with the exception of *A. sphenoccephala*. *Rana sphenoccephala* appeared to be better at escaping predation than the other species despite a relatively high activity rate. Examination of published phylogenies indicates *R. sphenoccephala* is derived from a species group that uses permanent water. We suggest *R. sphenoccephala* has retained many anti-predator defenses inherited from its ancestors, even though the species now exploits sites with low predator densities. (378: 5 July; Pershing S (AM); SSAR - Siebert Ecology & Evolution I)